

AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to Figs. 1-4. These sheets, which include Figs. 1-4, replace the original sheets including Figs. 1-4. In Figs. 1-4, a few reference numbers have been corrected.

Attachment: Replacement sheets

REMARKS

Applicants appreciate the Examiner's thorough examination of the application and request reexamination and reconsideration of the application in view of the following remarks. Applicants also appreciate the Examiner's indication that the subject matter of claims 11, 16 and 27 are allowable. Additionally, Applicants thank Examiner Binda for the telephone discussion on December 15, 2009, during which Examiner Binda confirmed that the Office Action incorrectly listed Spicer (FR 1,373,752) as the reference used in the claim rejections instead of Perrow (U.S. Patent No. 6,616,538).

As Applicants' remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicants' silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, assertions as to dependent claims, etc.) is not a concession by Applicants that such assertions are accurate or such requirements have been met, and Applicants reserve the right to analyze and dispute such assertions/requirements in the future. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicants expressly do not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03. Applicants respectfully request reconsideration of the present application in view of the new claim and the following remarks.

Through the above amendments, Applicants have amended claim 1 to include the features of claim 11, and cancelled claims 11 and 27. Additionally, Applicants have cancelled withdrawn claims 18-25, 30 and 31, and added new claim 33, which includes the features of original claims 1 and 26. No new matter has been added through the above amendments. Accordingly, claims 1, 12-17, 26, 28, 29, 32 and 33 remain pending in the application.

Drawings

The Examiner objected to the replacement drawings filed July 8, 2009 stating that reference characters 13, 113, 213, 313 and 110, 210, 310 were improperly changed to 13a, 13b, 13c, 13d.

Applicants have amended Figs. 1-4 to correct the reference characters. Accordingly, Applicants submit that the objection to the drawings has been overcome.

Claim Rejections – 35 U.S.C. § 102

To anticipate a claim, the reference must teach every element of the claim. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The Examiner rejected claims 1, 12-15, 17, 26, 28, 29 and 32 under 35 U.S.C. § 102(b) as being anticipated by Perrow (U.S. Patent No. 6,616,538).

Applicants acknowledge and appreciate the Examiner's indication that dependent claims 11, 16 and 27 would be allowable if rewritten in independent form. Merely to advance the prosecution of the subject application, Applicants have amended independent claim 1 to include the features of allowable claim 11. Accordingly, independent claim 1, and dependent claims 12-17, 26, 28, 29 and 32, are in condition for allowance for at least this reason.

Applicants have added new independent claim 33, which includes the features of original claim 1 and 26. New claim 33 is directed to a longitudinal plunging unit for transmitting torque in a shaft assembly, comprising a profiled sleeve with circumferentially distributed, longitudinally extending first ball grooves, a profiled journal which comprises a first portion with circumferentially distributed, longitudinally extending second ball grooves with ball groove run-outs, and an axially adjoining second portion, balls which are arranged in groups in pairs of first ball grooves and second ball grooves, a ball cage arranged radially between the profiled sleeve and the profiled journal and fixing the balls in their axial position relative to one another, wherein the ball cage is displaceable, relative to the profiled journal, between axial stops arranged at a distance from one another, and an abutment sleeve on the profiled journal and abutting the profiled journal or a component connected thereto to delimit the displacement path of the ball cage towards the second portion, wherein the abutment sleeve abuts the profiled journal or the component connected thereto

with an axial distance from the ball groove run-outs in a region of the second portion of the profiled journal, and wherein the abutment sleeve is integral with the ball cage.

The Examiner alleged that Perrow discloses all of the elements of original claims 1 and 26. Applicants respectfully disagree. Perrow fails to disclose balls which are arranged in groups in pairs of first ball grooves and second ball grooves; a ball cage arranged radially between the profiled sleeve and the profiled journal and fixing the balls in their axial position; and wherein the abutment sleeve is integral with the ball cage as claimed by Applicants. Perrow is directed to a constant velocity stroking joint. Figures 5 and 6 of Perrow are reproduced below:

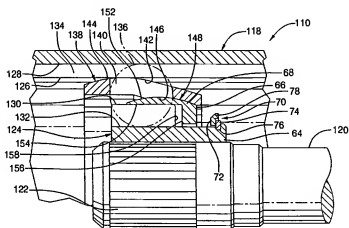


FIG. 5

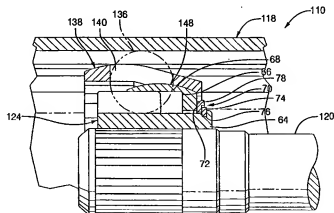


FIG. 6

Perrow discloses a constant velocity joint including an outer housing 118, an inner race 124, and torque transmitting balls 136 which are held in an outer ball cage 138. Perrow further discloses

an intermediate cage 148, which is disposed between the inner race 124 and the outer cage 138 and formed separately from each other. Intermediate cage 148 has a spherical outer face with a radius of curvature that is equal to that of the radius of curvature of the mating surface 146 of the outer cage 138, such that there is continuous spherical contact of the mating surfaces 146, 152 during angular and axial movements of the joint. The matched spherical surfaces 146, 152 effectively lock the intermediate cage 148 against axial shifting or movement relative to the outer cage 138, while allowing relative angular movement therebetween. See col. 4, lines 15-28 and Figs. 5 and 6 of Perrow.

However, Perrow fails to disclose balls which are arranged in groups in pairs of first ball grooves and second ball grooves as claimed by Applicants. Perrow specifically states that guide channels 28 and 32 “define a plurality of axial ball tracks 34 in which a corresponding plurality of spherical torque-transmitting balls 36 are disposed and rollable therealong. There are six such ball tracks 34 and balls 36 in the illustrated embodiment.” Col. 3, lines 59-62 of Perrow. See also Fig. 2 of Perrow, which shows one ball disposed in each ball track. Thus, it is clear that Perrow discloses that only one ball is disposed in each set of ball tracks 34. Perrow fails to disclose, teach or suggest that groups of balls are arranged in pairs of first ball grooves and second ball grooves as positively claimed by Applicants in new claim 33.

Accordingly, Perrow clearly fails to disclose balls which are arranged in groups in pairs of first ball grooves and second ball grooves as claimed by Applicants. As Perrow fails to disclose each and every element of independent claim 33 of the subject application, independent claim 33 is patentable over Perrow for at least this reason.

Additionally, the Examiner alleges that the intermediate cage 148 of Perrow corresponds to the ball cage as claimed by Applicants. Again, Applicants respectfully disagree. Claim 33 recites, in part, a ball cage arranged radially between the profiled sleeve and the profiled journal and fixing the balls in their axial position relative to one another. As shown above in Figs. 5 and 6 of Perrow, the intermediate cage 148 is open toward the left hand side of intermediate cage 148. As the intermediate cage of Perrow is open on one end, the intermediate cage cannot fix the balls in their axial position. Accordingly, Perrow fails to disclose a ball cage arranged radially between the

profiled sleeve and the profiled journal and fixing the balls in their axial position as claimed by Applicants.

The outer ball cage 138 of Perrow also fails to correspond to the ball cage as claimed by Applicants in claim 33. Independent claim 33 includes the feature of the abutment sleeve integral with the ball cage. Perrow fails to disclose, teach or suggest an abutment sleeve of any kind integral with the outer ball cage 138. Accordingly, Perrow fails to disclose wherein the abutment sleeve is integral with the ball cage as claimed by Applicants.

Therefore, Perrow also fails to disclose each and every element of independent claim 33 as Perrow fails to disclose a ball cage arranged radially between the profiled sleeve and the profiled journal and fixing the balls in their axial position, and wherein the abutment sleeve is integral with the ball cage as claimed by Applicants. Accordingly, independent claim 33 is patentable over Perrow for at least these additional reasons.

Conclusion

In view of the above amendment and remarks, the pending application is in condition for allowance. If, however, there are any outstanding issues that can be resolved by telephone conference, the Examiner is earnestly encouraged to telephone the undersigned representative.

It is believed no fees are due with this response. However, if any fees are required in connection with the filing of this paper that are not identified in any accompanying transmittal, permission is given to charge our Deposit Account No. 18-0013, under Order No. 66967-0033 from which the undersigned is authorized to draw. To the extent necessary, a petition for extension of time under 37 C.F.R. §1.136 is hereby made, the fee for which should also be charged to this Deposit Account.

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Respectfully submitted,

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Attachments